REMARKS

Claims 1-12 are pending in the application. Claims 7 and 8 are allowable.

Claims 1, 2, 4 and 9-12 under 35 U.S.C. § 102 as being anticipated by Sawahashi et al. (Sawahashi) and claims 3, 5 and 6 are rejected for obviousness under 35 U.S.C. §103 over Sawahashi in view of Shou et al. (Shou).

With respect to claims 1-8, claim 7 has been amended to an independent claim to include the limitations of claim1. claim 1 has been cancelled. Claims 2-6 are to be amended to dependent claims depending on claim 7.

Claims 2-8 are in condition for allowance which action is respectfully requested.

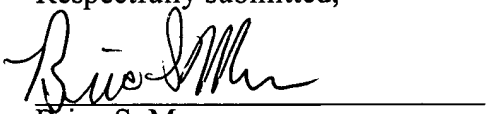
Independent claims 9 and 12 has been amended to include a similar feature as the allowable claim 7. Claim 10 and 11 depend from claim 9. Claims 9-12 are in condition for allowance which action is respectfully requested.

The present invention is provides a feature in which a received signal is stored in a storage unit and read out from the storage unit for despreading the received signal. Thus it becomes possible to set the dispread timing of the received signal and determine a despreading code for the received signal in a manner not affected by phenomena such as fading.

It is unavoidable for the correlation value of a signal to change from one moment to another due to phenomena such as fading when dispersing a signal on a real time basis. But, in contrast, by taking a subject signal from a storage unit, it become possible to compare between correlation values of a signal on the same standard and, hence, to detect the despread timing and the deapreading code associated with a signal in absence of influences such as phenomena like fading.

Sawahashi uses a sliding correlator when despreading a signal while, at the same time, stores the signal in a memory beforehand of despreading the signal. Sawahashi takes a signal from a memory and despreads it using a sliding correlator.

Respectfully submitted,



Brian S. Myers
Reg. No. 46,947

CUSTOMER NUMBER 026304

Katten Muchin Zavis Rosenman
575 Madison Avenue
New York, NY 10022-2585
(212) 940-8703
Docket No.: FUJS 15.723 (100794-11100)
BSM:nw

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please cancel claim 1 without prejudice.

Please amend the claims as follows:

2. (Amended) The detection device according to claim [1] 7, wherein the correlation value obtaining [means] unit performs a despreading process by shifting a phase of the code, and the detection [means] unit detects a phase of the code in a case where the correlation value is a maximum or greater than a reference value, as a despreading timing.

3. (Amended) The detection device according to claim [1] 7 wherein the correlation value obtaining [means is] unit includes a matched filter.

4. (Amended) The detection device according to claim [1] 7 wherein the correlation value obtaining [means is] unit includes a sliding correlator.

5. (Amended) The detection device according to claim [1] 7 wherein the correlation value obtaining [means comprises] unit includes a matched filter to be used in a case where the length of code is short or part of the code is used, and a sliding correlator to be used in a case where the length of the code is long.

6. (Amended) The detection device according to claim 2 wherein the correlation value obtaining [means comprises] unit includes a matched filter to be used in a case where the length of a code is short or part of the code is used, and a sliding correlator to be used in a case where the length of the code is long.

7. (Amended) [The detection device according to claim 1] A detection device comprising:

a storage unit storing a transmitted signal in a demodulator of a direct sequence CDMA signal;

a code generation unit sequentially generating codes for a candidate for a dispreading code;

a correlation value obtaining unit reading the signal stored in the storage unit to be despread by the code; and

a detection unit detecting the code used for the dispreading process as a spreading code on a transmission side, in a case where the correlation value obtained by the correlation value obtaining unit is a maximum or greater than a reference value,

wherein the detection device [comprises] includes an adder, a memory [means for] unit storing an output from the adder, and a feedback path [for] feeding back an output from the memory [means] unit to the adder, and the correlation values obtained by the correlation value obtaining [means] unit are totaled for a plurality of symbols.

9. (Amended) A detection method of detecting a spreading code and a despreading timing in a demodulator of a direct sequence CDMA signal comprising[the steps of]:

(a) storing a transmitted signal;

(b) sequentially generating a code to be a candidate for a despreading code;

(c) reading the signal stored in [the] step (a) to be despread by the code; and

(d) detecting the code used for the despreading process as a spreading code on a transmission side, in a case where the correlation value obtained in [the] step (c) is a maximum or greater than a reference value,

wherein step (d) is executed by an adder, a memory storing an output from the adder, and a feedback path feeding back an output from the memory to the adder and wherein the correlation values obtained in step (c) are totaled for a plurality of symbols.

12. (Amended) A detection device comprising:

a storage [means for] unit storing a transmitted signal in spread spectrum communication;

a code generation [means for] unit sequentially generating a code to be a candidate for a despreading code;

a correlation value obtaining [means for] unit reading the signal stored in the storage [means] unit to be despread by the code by shifting a phase of the code; and

a detection [means for] unit detecting a phase of the code used for the despreading process as a despreading code, in a case where the correlation value obtained by the correlation value obtaining [means] unit a maximum or greater than a reference value,

wherein the detection device comprises an adder, a memory storing an output from the adder, and a feedback path feeding back an output from the money to the adder, and the correlation values obtained by the correlation value obtaining unit are totaled for a plurality of symbols.